

# Study regarding the Proficiency of Nursing Teacher and Stressor

## — Targeting Nursing Teachers at Special Technical Schools —

Keiko Sakai, Michiko Inagaki\*

### Abstract

The purpose of this study was to clarify the process of proficiency development in nursing teachers at special technical schools and the relationship between stressors and the proficiency of nursing teachers. Subjects of this study were 30 nursing teachers with less than 11 years of teaching experience. Average teaching experience was  $9.1 \pm 7.7$  years. The study design was an exploratory qualitative study to determine factors, and data was collected from 30 subjects through a total of 73 interviews and analyzed comparatively and continually utilizing the grounded theory method. We divided subjects into 2 groups, proficiency and non-proficiency groups, and values measured by stressor scale, used to measure the stress factors, were compared in both groups. As a result, 4 categories, [confusion during the transition from nurse to nursing teacher], [establishing nursing and educational philosophy], [trial and error in nursing education], and [establishment of nursing educational theory], were extracted as processes of proficiency development in nursing teachers. Only those nursing teachers with more than 5 years teaching experience achieved the level of [establishment of nursing educational theory]. It was revealed that nursing teachers in the non-proficiency group strongly feel that "*relationships between teachers*" and "*classes*" were stressors, and those in the proficiency group strongly feel that "*dealing with students*" and "*research*" were stressors.

### Key words

nursing teacher, proficiency, stressor, special technical school, nursing education

### I. Introduction

Nursing teachers at special technical schools are required to possess proficiency as nurses and teachers and to be involved with students educationally because of their role in cultivating nursing staff. Given this, we wondered how nurses become nursing teachers and how they become proficient as teachers.

There exist a number of studies focusing on the ability and qualification of nursing teachers, such

as An inductive clarification of the ability desired for nursing teachers<sup>1)</sup>, Survey of teachers who have high fulfillment and satisfaction<sup>2)</sup>, Research on job satisfaction and what nursing teachers do for development<sup>3)</sup>, and Research on nursing teacher role model performance<sup>4-5)</sup>. Research regarding the proficiency of nurses includes a study on the level of proficiency derived from nursing practice<sup>6)</sup>. However, there have been no studies clarifying the process of nursing teacher proficiency development, with the exception of a study on nursing teacher

Ishikawa Prefectural School of Nursing,

Doctoral Program, Graduate School of Medical Science, Kanazawa University

\* Kanazawa University Graduate School of Medical Science

development after teacher training<sup>7)</sup>, and a survey of classifying the development process of nursing teachers into a newly-hired period, an early mid-level period, a later mid-level period and a proficient period<sup>8)</sup>.

We developed a stressor scale<sup>10)</sup> to measure the stress factors for nursing teachers at special technical schools. 9 factors were identified as stressors that nursing teachers encounter. These stressors are thought to be related to nursing teacher proficiency. This study of nursing teacher proficiency and stressors was undertaken to contribute to the adjustment of newly hired nursing teachers and provide suggestions for career improvement.

## II. Purpose of the study

(1) To clarify the structure of the process of proficiency development in nursing teachers at special technical schools.

(2) To clarify the relationship between stressors and the proficiency of nursing teachers.

## III. Study method

Respondents to the survey: 30 nursing teachers employed at special technical nursing schools who have less than 11 years of teaching experience.

Semi-structured interview was carried out 1-3 times for each teacher for a total of 73 interviews. Since the average length of teaching experience for the nursing teachers was  $9.1 \pm 7.7$  years and the average for full-time teachers was  $6.2 \pm 5.1$  years in a previous study<sup>3)</sup>, we asked for individuals with 10 years or less experience.

The age of the respondents to the survey was between 28-49 years old and all participants were female. 26 respondents took nursing teacher training sessions. Respondents came from Tokyo, Osaka, Kyoto, Toyama and Ishikawa. The average length of clinical experience was  $11.2 \pm 5.6$  years, and the average length of teaching experience was  $3.4 \pm 2.9$  years.

Period of the interviews and data collection: April, 2004 - April, 2005

## Research Method and Data collection method:

(1) Structure of the proficiency development process in teachers: This study is an exploratory qualitative study to determine factors utilizing the grounded theory method. We conducted 1-3 interviews and 2 stressor surveys per respondent. During the initial interview, participants were asked: (a) how they deal with students on a daily basis; (b) the ingenuity of their lessons and practice methods; (c) their feelings about proficiency; and (d) which stresses they felt the strongest. During the second interview, we asked participants if there were changes in their responses to questions (a)-(c) within the previous 6 months to one year. During the final interview, we asked participants: (e) how they felt as nursing teachers and (f) how they felt about the rough data of proficiency development process drawn from the 1st and 2nd interviews.

### (2) Stressor survey

We used the stressor scale<sup>6)</sup>. The scale consists of the following 9 factors and 57 items: dealing with students (8 items); working environment (8 items); quality of teachers (8 items); being busy (7 items); handling problems (6 items); educational methods (6 items); relationships between teachers (5 items); research (5 items); and improvement of educational ability (4 items). Answers were given on a 5-point scale from *I really think so* to *I would like to try*, with a higher point value indicating higher stress. The reliability of the results was high ( $\alpha = 0.82 - 0.92$ ), and the validity was confirmed to have high correlation with related scales (with manifest anxiety scale (MAS)  $r = 0.54$ , with burnout scale  $r = 0.56$ ). These were checked after the 1st and the final interviews.

### Analysis methods

(1) The responses obtained during the interviews with respondents to the survey were transferred to written form through a word-for-word transcription, and the data was used as the primary code. The meaning of the primary code regarding proficiency development process was extracted, coded and used as the secondary code. Furthermore,

subcategories were extracted through the coding of the continual comparison. As for the characteristics of each subcategory, we set time as a horizontal axis and extent of development as a vertical axis in order to find the category, and created story lines between categories.

(2) In order to obtain stressor scale data, we divided respondents to the survey into groups (2 groups depending on the proficiency patterns obtained from the results of the analysis), and tested the difference of average values (we used the statistical software, SPSS Ver.12. After confirming the equality of the population variance of the 2-stressor scale scores of each group by each factor, we conducted t-statistic and Welch's t-test). These 2 groups were also classified by stressors and self-evaluation expressed in the interviews.

#### IV. Ethical considerations

This study was approved after ethical screening by the Research Ethics Committee, Graduate School of Medical Science, Kanazawa University.

#### V. Reliability and validity assurance

We conducted the following in order to increase the reliability and validity of this study. The meanings of the words and actions of participants were clarified as the interviews were carried out. We paid attention not to deviate from data while relating subcategories to one another. The subcategories were required to be the most logically related to the data identified from their names and named so as to be readily identifiable. Analysis was conducted under the supervision of specialists in qualitative research, and the results of the analysis were verified by participants at the second and third interviews to increase ease of identifiability. In addition, conformity of category names and the structures was assured by nursing teachers who had more than 10 years teaching experience.

#### VI. Result

##### 1. Process of nursing teacher proficiency development

Four categories were extracted from survey responses obtained from respondents as the

process of proficiency development (Fig.1). Hereafter, categories are shown with [ ] as follows : [Confusion during the transition from nurse to nursing teacher], [establishing nursing and educational philosophy], [trial and error in nursing education], and [establishment of nursing educational theory]. Each category was perceived as two dimensional according to the degrees of time and development. Each category revealed the presence of two chronologically coinciding categories, in other words, a transition period. Categories may improve; however, sometimes they may decline, too. These four categories consisted of 2-3 subcategories and there were some correlations between subcategories.

##### (1) Category 1 [Confusion during the transition from nurse to nursing teacher]

When they were transferred from nursing positions at actual nursing sites to nursing teaching positions at special technical schools, nurses were disoriented about what to do at the educational sites although they were aware of their roles and responsibilities as nursing teachers. This is the first emotional process that nurses experienced, and it was found to consist of two subcategories mentioned below. The secondary codes that form the base of this category are also described under each subcategory.

① **Subcategory 1** *I am overwhelmed because I am aware of the roles and responsibilities of nursing teachers:* I am overwhelmed although I am aware of the roles I am required to fulfill as a nursing teacher, There are various facts that motivated them to be teachers, The responsibility for students is very significant, The view of students has changed in a positive direction, Teaching the basics is important for education; and You cannot see the result of education so quickly. It is necessary to wait.

② **Subcategory 2** At first, it was a totally different world, disorienting. I was lost but I did my best: At first, it was a totally different world, Disorienting, Being lost, Being worried, I tried my best; and Trial and error.

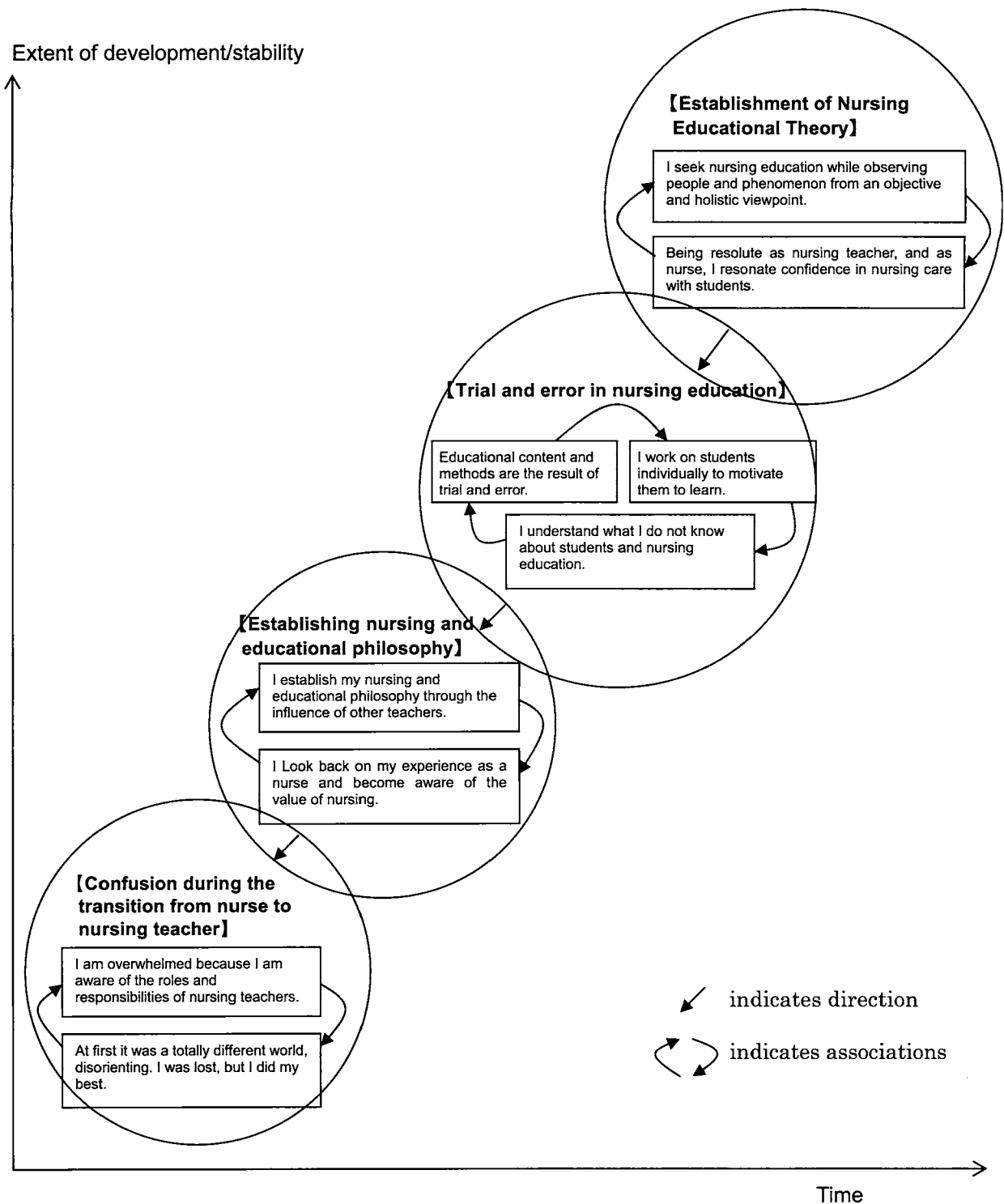


Figure.1 Nursing Teacher Proficiency Development Process

**(2) Category 2 [Establishing nursing and educational philosophy]**

After [confusion during the transition from nurse to nursing teacher] at the previous stage was formed, they thought back on their past experience as nurses. They tried to establish their

own nursing and educational philosophies by taking nursing teacher training sessions or through the influences of other nursing teachers. This category consisted of the following two subcategories:

① **Subcategory 1** Looking back on my experience as a nurse, I become aware of the value of nursing: Being aware of years of clinical experience, Experience is a support for me, I could not look back on myself because I was busy at the clinical sites, I examine my own clinical teaching experience, To be honest, I like clinical work, Patients are important and endearing, Patient response is meaningful to me at hospitals; and Nursing care for patients and the attitude toward student education are the same.

② **Subcategory 2** *Establish nursing and educational philosophy through the influence of other teachers*: Asking myself what education is, I have my thoughts; however, it is difficult to put them into words, Organizing nursing care, My nursing philosophy is expanding even after becoming a teacher, I correlate the clinical experience with theory and reason, I moved on with the support from other teachers, I felt stress when I was told something by other teachers, I compare myself with other teachers, I feel I am different from supervisors and older teachers, I discuss and adjust with other teachers; and The person who I was modeling myself after was a nursing teacher.

**(3) Category 3 [Trial and error in nursing education]**

After becoming a nursing teacher, he/she is involved with students in practical training and classes from a comparatively early stage. [Establishing nursing and educational philosophy], the teacher engages in trial and error in the practical nursing education on a daily basis. This consists of the following three subcategories;

① **Subcategory 1** *I understand what I do not know about students and nursing education*: I understood what I had not understood fully but thought I knew about nursing care, I realized that it is necessary to understand student needs, I am afraid of student reactions, I can understand the students' reactions, I understand the joy of understanding, I understand that it is necessary to see the students' reactions during classes, It will

be great if I could see each student's reaction, I have things to communicate to students, but I have not done it yet, I know students have ability; and I cannot organize what I want to teach.

② **Subcategory 2** *Educational content and methods are the result of trial and error*: I get depressed and burned out, and I would like to escape, I teach what is currently going on in the world, I tell about my experience, I try different educational methods, I teach students not only the contents of the textbook, but also what is close to the clinical contents; and I am involved at the clinical sites as a nurse.

③ **Subcategory 3** *I work on students individually to motivate them to learn*: I got used to speaking, I have changed my attitude working with students, I can communicate to each student individually, I accept students, I was trained to be a teacher by students, I move on with students, I try to motivate students to learn; and I can be involved with students naturally.

**(4) Category 4 [Establishment of nursing educational theory]**

Two subcategories: "*I resonate confidence in nursing care with students.*" "*I seek nursing education while observing people and phenomenon from an objective and holistic viewpoint,*" were extracted from the longitudinal interviews with respondents to the survey and showed the establishment of nursing educational theory of their own. This category connected to a feeling of comfort, confidence in nursing care and education and conscious educational actions.

① **Subcategory 1** *I resonate the confidence in nursing care with students*: I feel comfortable, I feel comfortable and in control, I can see my gradual development when I look back on myself, I narrow down the contents to communicate to students, I have confidence to do nursing care, I can express my foursquare belief through my words, I am using my experience of becoming and being a nurse for teaching. I resonate what I believe the essentials of nursing care with students, I can confirm my teaching from

students' reactions; and I am willing to go through the effort to educate students.

② **Subcategory 2** *I pursue nursing education while observing people and phenomena from an objective and holistic viewpoint*: I move forward viewing myself objectively, I will develop myself along with student development, I can go along flexibly with the students' thought process, The final standard for my judgment is what I cannot forgive as a person, I never forget the feeling of being involved with human lives, It is important for nurses to develop their five senses, I show students nursing practice, I try to ascertain how

much students understand nursing care considering the condition of the patient and prediction of needs, and the direction of support. I help students understand the direction of nursing care by showing this to them, I can promote student development, I pursue the special areas of nursing care and education; and I keep learning.

## 2. Patterns of proficiency development in nursing teachers

10 out of 30 participants verbalized the fourth category; comfort, confidence and actions. 20 participants mentioned others. We categorized the

Table 1 Proficient and non-proficient group nursing teacher self-evaluation

Subcategory	Non-proficient group (n=20)	Proficient group (n=10)
① "I have no confidence."	<ul style="list-style-type: none"> <li>▼I'm worried about whether I should continue as a nursing teacher in this way.</li> <li>▼I'm still not good enough.</li> <li>▼I still haven't matured.</li> <li>▼I have to motivate myself to study. I have to work harder because I'm not confident about my student management skills.</li> <li>▼Differences with students and not getting a response from students really hurts, so I try not to get burnt out. But it is really eating me up.</li> </ul>	<ul style="list-style-type: none"> <li>○First of all, I have no confidence in teaching.</li> <li>○I always feel my lack of ability in teaching and am worried about what I did in classes and for the students.</li> <li>○Even after undergoing training, the actual workplace is very different.</li> <li>○I don't have confidence in my view of nursing.</li> </ul>
② "It is stressful."	<ul style="list-style-type: none"> <li>▼I am too nervous to pay attention to the things around me.</li> <li>▼I cannot relax, and this becomes stressful.</li> <li>▼It takes time for me to prepare for classes, so I get stressed thinking about tomorrow's classes or next week's classes.</li> <li>▼I have no time for myself, I'm always complaining. While taking a bath, during dinner time, I am worried about the next thing on the list. I cannot enjoy thinking that Saturday is coming and I can take a rest, instead I'm always thinking about the next task. How long will this go on?</li> </ul>	
③ "I feel relieved when I receive positive comments about my work."	<ul style="list-style-type: none"> <li>▼When somebody says what I am doing is OK, I feel relieved</li> <li>▼I feel relieved when it is put into words</li> <li>▼What is enough, and what is lacking?</li> <li>▼I'm not balanced</li> </ul>	
④ "I made the decision to be either a nursing teacher or a nurse."	<ul style="list-style-type: none"> <li>▼I work with confidence</li> <li>▼I have become comfortable being at school. I can stick to it.</li> <li>▼Above all else, I have a strong desire to be a nurse and teach nursing care. I feel that I am teaching my co-workers.</li> <li>▼If somebody were to ask me whether I am a nurse or a nursing teacher, I would say, a nurse.</li> </ul>	
⑤ "I am gaining confidence."	<ul style="list-style-type: none"> <li>▼Continuing to work in that way, I've gained confidence, and was able to focus more on the students</li> </ul>	<ul style="list-style-type: none"> <li>○I feel I have gained confidence gradually by doing this and that.</li> <li>○I was involved as a leader in events and planning such as open campus and coordinating with medical college students, and various other things regarding education. I had a great experience planning, operating and coordinating with other divisions.</li> </ul>
⑥ "I have practical nursing care ability and positive experiences"	<ul style="list-style-type: none"> <li>▼Knowing that I was actually able to help gives me a good feeling, and this has become a positive experience for me.</li> </ul>	<ul style="list-style-type: none"> <li>○I have no worries about my practical nursing care abilities. I can give injections although it is scary. I only worry about night shifts.</li> <li>○I can pick up new skills quickly.</li> </ul>
⑦ "I was an experienced nurse."		<ul style="list-style-type: none"> <li>○A patient with maxillary sinus cancer never wanted me to give the bed bath but always wanted another nurse. There are various roles. I was glad to know that the patient only asked me and not others to give oral care. The patient chose me. The patient said, 'thank you' three days before he became unconscious.</li> <li>○Because I was planning to open a maternity center, I had a lot of confidence.</li> </ul>
⑧ "I stick to nursing care and develop my skills."		<ul style="list-style-type: none"> <li>○I am dealing with maternity nursing and other nursing areas, too. First, I live as a human. I keep learning from literary documents and clinical sites. I develop the wealth of my spirit in a balanced manner, and accumulate experience and knowledge.</li> </ul>

Table 2 Stressors related to proficient and non-proficient groups mentioned in interviews of nursing teachers

(n=30) (Responses from 20 non-proficient teachers (▼) and 10 proficient teachers (○))

<p>① Dealing with students (10 people)</p>	<p>▼ Instructing students                  ▼ Being required to say little things that should not have to be said causes stress.                  ▼ I am guilty of expecting that some things will change right away even when they don't.                  ○ Dealing with students daily                  ○ Teaching people is stressful                  ○ Where I feel stress is in managing students. Though this is nursing, counseling is required, and I wonder if one teacher can handle students with problems. I have doubts and wonder if I am doing the right thing for the students.                  ▼ There are a few students who I just don't click with. When I think of how I have inappropriate feelings, I feel stress.                  ○ I wonder if it's appropriate for me to say that 18- or 19-year-old students are not fit to become nurses. This is a huge source of stress for me. It's easy to tell people to quit, but I wish I could give people better advice for how to choose a good life.                  ○ Because some students have their own ways of thinking, they tend to say things out of emotion, and my way of thinking sometimes doesn't get communicated effectively to the students. I think the way I say things is problematic sometimes, and I'm not sure what to do about that.                  ○ What I feel is the most important thing is that when I wonder how knowledge impacts students and what they do with those feelings and how this student feels just now, and what this student is thinking, and the response is not what I expected, I exemplify what I think and feel when I teach, and the students think, "oh, so it's like that," and so I often wonder exactly how I should speak. I have opinions, but I'm not sure what to do, every day seems like it's about technical skill. But I guess that's not so stressful.</p>
<p>② Relationships between teachers (9 people)</p>	<p>▼ Coworker relations cause stress                  ▼ Coworker relations cause stress, and there is no one I can turn to.                  ▼ I'm not getting along well with my coworkers                  ○ Last year, when I thought an idea was good I could implement it right away, but this year I can't.                  ▼ Workplace regulations. Work in the hospital in addition to teaching.                  ▼ It turns out that things I thought I was communicating well were not being understood.                  ▼ My fundamental attitude toward education is different, but it feels like I have to conform.                  ○ In the hospital we talked about patients. Nurses formed groups and battled problems together. I suppose a teacher should be concerned with her own business only, not form groups, and have independent responsibility, though.                  ○ I know that I have to give it a try, but I feel I'm not putting my all into it.</p>
<p>③ Class (6 people)</p>	<p>▼ There isn't an adequate structure and I don't know where to begin teaching, so I feel pressured.                  ▼ My own way of thinking lacks balance and is short-sighted and terrible. I wonder if I will be able to mature in a balanced way as a human being with sincerity and honesty towards other people, and, of course, things learned as a human being, things I am continuing to learn at the work place, and warmth of the heart, and link together experience and knowledge...                  ▼ Not knowing what to teach and how to teach in class                  ▼ Not being able to explain some nursing fundamentals due to my weakness in nursing research and interpersonal relationships.                  ▼ Right now I guess it's the class beginning in the second semester. Taking on something new is causing stress, I guess.                  ○ About my experience and my feelings, if I were to put them in different words maybe what I want to communicate about what I have done would be understood, but concerning topics dealing with theory and the view of nursing, I don't have confidence that my communication style is sufficient.</p>
<p>④ Continuing as a nursing teacher (2 people)</p>	<p>▼ I have to do it, but I feel like I am hurting the students... I worry whether it's good for me to continue being a nursing teacher in this way.                  ▼ I have reached my stress peak. I feel like I will be overwhelmed by stress.</p>
<p>⑤ I have no leeway (2 people)</p>	<p>▼ When many tasks all seem to get dumped on me all at once, not having leeway is stressful.                  ▼ I have no time to prepare for class.</p>
<p>⑥ I'm not very stressed (1 people)</p>	<p>▼ I personally felt there was nothing that caused all that much stress for me.</p>

former group as the "Proficient Group" and the latter group as the "Non-Proficient Group".

**(1) Difference in self-evaluation by proficiency patterns**

As is mentioned above, it was revealed that there were four categories in the process of proficiency development in nursing teachers. However, some findings regarding self-evaluation outside the proficiency process were found in some of the interview responses. We categorized these findings into 8 categories (Table 1, ①-⑧).

The data trends for the proficient and non-proficient groups revealed that the non-proficient group expressed ①-④ more, and proficient group expressed ⑤-⑧ more.

**(2) Relationship between stressors and proficiency patterns mentioned in interviews (Table 2)**

We categorized the stressors that each group, proficient and non-proficient groups, feel the most. The result showed that the non-proficient group expressed "relationships between teachers" and "classes" more frequently, and the proficient group expressed "dealing with students" more.

**(3) Relationship between proficiency patterns and stressor scale (Table 3)**

The difference in the average number of stressors was examined for proficiency and non-proficiency groups. Average years of experience of nursing teachers were 2.6 years in the non-

Table 3 Relation between proficient and non-proficient nursing teachers and stressor scale (unpaired t-test M±SD)

Stressor factor	Dealing with students	Working environment	Quality of teachers	Being busy	Handling problems	Educational methods	Relationships between teachers	Research	Improvement of educational ability	Length of teaching experience
Non-proficient group n=20	18.3±5.9	16.3±4.4	14.2±6.0	17.6±5.4	12.0±5.0	13.8±5.6	12.1±3.8	8.7±4.2	9.3±4.6	2.6±2.8
Proficient group n=10	22.0±5.2	15.7±3.8	14.5±7.0	19.4±5.3	14.1±5.9	13.8±7.9	14.3±2.6	11.9±3.3*	9.7±3.5	5.2±2.3*

\*p&lt;0.05

proficiency group and 5.2 years in the proficiency group, and it showed a significant difference between non-proficient and proficient groups. There was a significant difference in "Research" among nine stressor factors ( $p<0.05$ ), and the proficient group felt more stressors than the non-proficient group. "Dealing with students" factor also showed a tendency for the proficient group to feel stressors to a greater degree than the non-proficient group ( $0.05<p<0.1$ ).

## VII. Discussion

### 1. Factors seen in the proficiency development process in nursing teachers

Four categories, [Confusion during the transition from nurse to nursing teacher], [establishing nursing and educational philosophy], [trial and error in nursing education], and [establishment of nursing educational theory], were revealed as the process of proficiency development. Content of [establishment of nursing educational theory] among four categories is qualitatively deeper than that of other categories; therefore, it was thought to indicate the level at which teachers have become proficient. Nursing teachers in this study were separated into a "proficient group," teachers who were in the category of [establishment of nursing educational theory], and a "non-proficient group", teachers who were developing to be in the category.

#### (1) The proficiency development process includes learning process factors

In the proficiency development process in nursing teachers, "I do not understand it." transits to "I understand what I did not understand," "I do understand it." and "I can do it." This process

matched with the general learning process<sup>10</sup>. The transition process from "I do not understand it." to "I do understand it." and "I can do it" is essential in terms of the role of teachers. In other words, it indicates that nursing teachers required self study.

#### (2) Proficiency development process includes factors of time and self-evaluation

The proficiency development process included factors of time and self-evaluation. First, [Confusion during the transition from nurse to nursing teacher] was seen at the beginning after becoming a nursing teacher. [Establishing nursing and educational philosophy] was a process conducted through tracking past experience and in comparison with other co-workers. [Trial and error in nursing education] is the current situation. For example, there were factors such as, "I got used to speaking by checking students' reactions a little bit," "I can communicate to each student individually," "I try to motivate students to learn" and "I can be involved with students naturally," in subcategory 3 of category 3, "I work on students individually to motivate them to learn", and the teachers' actions changed within a subcategory in this manner.

Going through this process, [Establishment of nursing educational theory] which was unique among nursing teachers, was seen. These teachers "resonated confidence in nursing care with students," "sought nursing education while observing people and phenomena from an objective and holistic viewpoint," and supported student independence. Nursing teachers became proficient over time. We categorized teachers who



could fit into the category, [Establishment of nursing educational theory], into “*proficient group*” and those who are developing to it into “*non-proficient group*.” The teachers in the former group showed confidence in themselves for [self-evaluation]; however, the latter showed the lack of confidence. It is revealed that the proficiency development process is related to self-evaluation.

Erikson<sup>11)</sup> claimed that developmental tasks occurred in a series of stages. However, development exhibited in this study was not simply linear and staged progress between categories. Variation was seen among nursing teachers: sometimes passing through individual categories one at a time, sometimes experiencing several categories at the same time and sometimes returning to categories that they had already passed through. In addition, they sometimes proceed in a cycle between subcategories within a category. Because proficiency develops through a complicated process, it is thought to take time to pass through each category.

The number of years of teaching experience between proficient and non-proficient groups was 2.6 and 5.2 years. This suggested that at least five years were required for the transition from nurse to nursing teacher, and it seems significantly different from the study result by Benner<sup>12)</sup> who concluded that 8 years was required to become proficient.

### **(3) The proficiency development process includes developmental factors**

Harry<sup>13)</sup> indicated that there was a series of steps in the maturation process. The transition of the target of interest from the teachers themselves to students, in other words, the transition to unselfishness and a deep interest in others is thought to be a high stage in the maturation process required for teachers.

Harry also observed that a mature person who has reached a given level does not remain there

but rather continues growing. Individuals who reached the level of [establishment of nursing educational theory] clearly stated, “*I will keep learning*” and “*I will keep seeking*.” Therefore, it can be thought that they are making an effort to develop more.

## **2. Content of proficiency**

The result of this study revealed the following points of awareness and actions as the content of [establishment of nursing educational theory]: “*I am comfortable with the situation*,” “*I communicate confidence and belief in nursing care and education*,” “*I resonate the essentials of nursing care with students*,” “*I keep my involvement with students flexible in order to let them learn voluntarily*,” “*I try to predict patient conditions, understand the direction of support and ascertain how much students understand, and make students realize the essence of nursing care*,” “*I pursue special areas of nursing care and education*,” and “*I keep learning*.” As educators, these nursing teachers were all mature and showed recognition of conscious and active educational practice. However, it is difficult to define a static level of proficiency. Some may achieve a level and stop, but others may continue to improve, potentially without limit. According to the findings in the study, it is appropriate to define the proficiency of nursing teachers as “*to establish nursing educational theory and to have motivation in dealing with students and research; however, this motivation would sometimes be a stressor*”. To continue the observation of nursing teachers may contribute to the development of the study of nursing teacher proficiency and the establishment of the definition of proficiency that is particular to nursing teachers.

## **3. Characteristics of the proficiency development process**

### **(1) Comparison with other fields**

The process of becoming proficient found in this study has not been reported on for other educational personnel; therefore, it is difficult to compare. However, we will discuss the characteristics

of nursing teachers based on the results of this study. The first is an occupational characteristic of nursing teachers. In most cases, upon employment as teachers at educational sites, they find themselves in a situation in which they are beginners, unable to function well—despite the fact that they had been clinically experienced, skilled nurses. Such a gap increased the degree of confusion and it was shown in Category 1, [Confusion during the transition from nurse to nursing teacher]. The second is a characteristic of nursing science. Nursing science is a practical and human science that crosses over various fields including pedagogy, psychology, sociology and medical science. It involves people and, therefore, the ability and the job content are complicated and incorporate various fields. Category 2, [establishing nursing and educational philosophy], revealed the situation of nursing teachers who are trying to redefine their individual foundation: what is it to be human?; what is nursing care?; and what is nursing education? The third is the difficulty of teaching nursing. The purpose of nursing education is to nurture nursing care specialists. In other words, it requires providing students with a high quality of clinical ability for nursing care, and its teaching contents are not simple at all. It is hard to say that nursing education has been examined sufficiently and that the educational theories have been developed based on evidence. The state of individual nursing teachers who hit a wall in the development of educational contents and methods, and try hard to solve the problem by using their individual ingenuity and efforts was described in Category 3, [Trial and error in nursing education].

## (2) Comparison with clinical nurses

Benner<sup>6)</sup> divided the proficiency of nurses into five steps: novice, advanced beginner, competent, proficient and expert. According to her study, expert nurses exhibit two patterns of action: ① they identify a problem and solve it, ② they learn effectively from experience. This study showed that nurses who became nursing teachers had already exhibited ① and ② before they reached the level of expert. ① was found in the process of

learning by looking back over their experiences in the [establishing nursing and educational philosophy] and ② in the process of problem solving in [trial and error in nursing education]; therefore, it is thought that such nursing teachers used proficient action patterns. Benner<sup>12)</sup> indicated that nurses at the expert level manage 9 different practical areas.

Among the 9 areas, 2 areas, “*discussing the various clinical, logical and practical ways of thinking*” and “*excellent know-how of clinical leadership, teaching and advising others*” were similar to the several of the contents included in [establishment of nursing educational theory]; namely, “*I can go along flexibly with students’ thought process*” and “*I try to predict patient conditions, understand the direction of support and ascertain how much students understand, and make students realize the essence of nursing care.*” This showed that nursing teachers who had been nurses were applying what they had experienced and learned although the content and method of the job were new for them. Therefore, it was thought that they were utilizing the action patterns and practical areas of expert nurses. In this meaning, they are utilizing not only the experience of teaching but also their experience of nursing in order to transit to the [establishment of nursing educational theory]. It is thought that clinical knowledge, experience and the view of people affect teaching attitude toward individual students. In addition, Benner describes nurse proficiency in 5 stages of practice skill learning; however, this differs from the process revealed in this study, a process in which nurses transitioned into nursing teachers by restructuring their professional action patterns and experience into nursing teacher practices.

## 4. Nursing teacher proficiency development process and stressors

We used two methods, interviews and stressor scale surveys, to collect nursing teacher stressor data, divided the data into proficient and non-proficient groups and compared them. The strong stressors obtained during interviews were

“relationships between teachers” and “classes” in the non-proficient group, and “dealing with students” in the proficient group. By stressor scale survey, “research” and “dealing with students” were revealed as stronger in the proficient group than in the non-proficient group. This indicated that the non-proficient group was greatly affected by other factors, such as the existence of co-workers being stressful, and a lack of confidence in teaching due to individual lack of personal self confidence. On the other hand, for teachers in the proficient group who have established their own nursing educational theory, it is thought that stressors were the result of confronting students rather than themselves and the creation and pursuit of nursing care and education. As nursing teachers becoming more proficient, the source of their stress changed.

Lazarus<sup>14)</sup> observed that stress was caused by various factors and processes, and was greatly influenced by individual cognitive appraisal, and that cognitive appraisal could be changed by values, commitment, perception, thinking style and environment. As nursing teachers become more proficient, they involve themselves as educators in educational activities directed toward students, and try to pursue the development of others and of nursing science; therefore, it is thought that the stress toward handling students and research increased.

#### VIII. Utilization and prospect

This study clarified the proficiency development process and the definition of nursing teacher proficiency utilizing an exploratory qualitative study to determine factors, mainly targeting nursing teachers at special technical schools. There was no research regarding nursing teachers' proficiency prior to this study in Japan; therefore, this study is believed to be significant. The proficiency development process of nursing teachers revealed in this study can be used for career development targeting newly hired nursing teachers as well as for the support and training of newly hired nursing teachers. Because this

proficiency development process parallels the stabilization of self evaluation, it suggests that it is unnecessary to worry about natural fluctuation in self evaluation during the period following hiring. Clarification of the content of nursing teacher proficiency development in this study is expected to contribute to the establishment of a more effective methodology, and to connect to the development of research and nursing education.

It was revealed that nursing teachers in the non-proficient group strongly feel “relationships between teachers” and “classes” to be stressors, and those in the proficient group strongly feel “dealing with students” and “research” to be stressors. It was thought that when nursing teachers were newly hired, they required support and education by supervisors and co-workers, and as they become proficient, they require support for their research and student guidance methods depending on individual development.

#### IX. Future tasks

This study was conducted on nursing teachers at special technical schools only. There are more and more nursing teachers involved with basic nursing education working at universities nowadays; therefore, it is important to expand the target and elaborate the process and characteristics of proficiency.

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## 看護教員の熟練化とストレスーに関する研究 —専修学校の看護教員を対象として—

坂井恵子, 稲垣美智子\*

### 要 旨

本研究の目的は、専修学校の看護教員がどのように熟練化していくのか、また看護教員の熟練化とストレスーについての関係を明らかにすることにあった。研究対象は、教育経験年数11年未満の看護教員30名で、平均教育経験年数は9.1±7.7年であった。研究デザインは、質的因子探索型研究で、対象者30名について延べ73回の面接法によるデータを、グランデッドセオリー法による比較継続分析を用いた。分析結果から、対象者を熟練群・非熟練群に2分し、ストレス要因を測るストレスー尺度について両群間で比較した。結果、看護教員の熟練プロセスは、【看護師から看護教員の移行に伴う混乱】【看護観・教育観の整理】【看護教育についての試行錯誤】【看護教育論の確立】の4つのカテゴリが導き出された。【看護教育論の確立】に至った者は看護教員歴5年以上の者であった。また看護教員はストレスーとして、非熟練群は「教員関係」「授業」を、熟練群は「学生指導」「研究」を強く感じる事が明らかとなった。